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**ENERGY AND ENVIRONMENT CABINET**
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
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LEONARD K. PETERS
SECRETARY

# FACT SHEET

## KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM
## PERMIT TO DISCHARGE TREATED WASTEWATER
## INTO WATERS OF THE COMMONWEALTH

**KPDES No.:** KY0066532 **Permit Writer:** Dan Juett **Date:** April 7, 2009
**AI No.:** 766

**1. SYNOPSIS OF APPLICATION**

a. Name and Address of Applicant

Hopkinsville Water Environment Authority
P. O. Box 628
Hopkinsville, Kentucky 42240

b. Facility Location

Hammond Wood Wastewater Treatment Plant
Gary Lane
Hopkinsville, Christian County, Kentucky

c. Description of Applicant's Operation

City

d. Design Capacity

6.0 MGD

e. Description of Existing Pollution Abatement Facilities

Treatment process consists of screening, grit removal, primary settling, oxidation ditch activated sludge, secondary settling, ultra violet disinfection, and post aeration. Sludge Solids are processed by: thickening, anaerobic digestion, belt filter press, and transfer to a composting facility.

f. Permitting Action

This is a reissuance of a major KPDES permit for a municipally/regional planning authority owned wastewater treatment plant serving a municipality. The effective date of this permit is being synchronized with the Northside Wastewater Treatment Plant permit; which is also, operated and owned by the Hopkinsville Water Environment Authority. The Northside WWTP is scheduled for decommission on April 1, 2012. Upon that date, the influent of Northside WWTP shall have been routed to Hammond Wood WWTP.

## 2. RECEIVING WATER

a. Name/Mile Point

Facility discharges to the North Fork of the Little River at latitude 36° 48′ 14″ and longitude 87° 30′ 54″.

b. Stream Segment Use Classification

Pursuant to 401 KAR 5:026, Section 5, North Fork of the Little River carries the following classifications: warm water aquatic habitat, primary contact recreation, secondary contact recreation, and domestic water supply.

c. Stream Segment Categorization

Pursuant to 401 KAR 5:030, Section 1, North Fork of the Little River is categorized as "Impaired Waters". Facility discharges to Russell Creek at River Mile Index, RMI, of 0.3. North Fork of the Little River from 0.3 to 7.0 is listed on Kentucky's 2008 Integrated Report to Congress on the Condition of Water Resources in Kentucky Volume II 303(d) List of Surface Waters. Impaired Use(s) are partial support for fishing and partial support for swimming. Pollutants of concern are fecal coliform, sedimentation/siltation, nutrient/eutrophication biological indicators, and organic enrichment (sewage) biological indicators. Suspected Sources are agriculture activities and municipal point source discharges. The permit issuance does not present a water quality problem and does not contribute to the impairment conditions. A properly operated wastewater treatment plant will not contribute to the impairment.

d. Stream Low Flow Condition

The 7-day, 10-year low flow and harmonic mean conditions of North Fork of the Little River are 5.0 and 10.0 cfs, respectively.

## 3. REPORTED DISCHARGE AND PROPOSED LIMITS

Serial Number 001 – Sanitary Wastewater (Design Flow = 6.0 MGD)

| Effluent Characteristics | Reported Discharge | | Proposed Limits | | Applicable Water Quality Criteria and/or Effluent Guidelines |
|---|---|---|---|---|---|
| | Monthly Average | Daily Maximum | Monthly Average | Daily Maximum | |
| Effluent Flow (MGD) | 3.08 | 19.2 | Report | Report | 401 KAR 5:065, Section 2(8) |
| Influent Flow (MGD) | NR | NR | Report | Report | 401 KAR 5:065, Section 2(8) |
| Effluent $CBOD_5$ (mg/l) | 1.41 | 3.54 | 10 | 15 | 401 KAR 10:031, Section 4<br>401 KAR 5:045, Sections 3 and 5 |
| Influent $CBOD_5$ (mg/l) | 148 | 258 | Report | Report | 401 KAR 5:065, Section 2(8) |
| Percent Removal $CBOD_5$ (%) | 98.2 | 99.5 | 85 or greater | | 40 CFR 133.102(a)(4) |
| Effluent TSS (mg/l) | 2.71 | 11.1 | 30 | 45 | 401 KAR 10:031, Section 4<br>401 KAR 5:045, Sections 2 and 3 |
| Influent TSS (mg/l) | 156 | 228 | Report | Report | 401 KAR 10:031, Section 4 |
| Percent Removal TSS (%) | 97 | 99.1 | 85 or greater | | 40 CFR 133.102(b)(3) |
| Fecal Coliform (N/100 ml) | 17 | 60 | Removing from permit | | 401 KAR 5:080, Section 1(2)(c)2 |
| *Escherichia Coli* (N/100 ml) | NR | NR | 130 | 240 | 401 KAR 10:031, Section 7<br>401 KAR 5:045, Section 4<br>401 KAR 5:080, Section 1(2)(c)2 |
| Ammonia Nitrogen (as mg/l N) | | | | | |
| May 1 - October 31 | 0.257 | 1.02 | 2.0 | 3.0 | 401 KAR 10:031, Section 4 |
| November 1 - April 30 | 0.326 | 1.63 | 5.0 | 7.5 | 401 KAR 5:045, Sections 3 and 5 |
| Dissolved Oxygen (mg/l) (minimum) | 8.47 | 10.2 | Not less than 7.0 | | 401 KAR 10:031, Section 4<br>401 KAR 5:045, Sections 3 and 5 |
| pH (standard units) | 7.4 | 7.8 | 6.0 (min) | 9.0 (max) | 401 KAR 10:031, Section 4<br>401 KAR 5:045, Section 4 |

## 3. REPORTED DISCHARGE AND PROPOSED LIMITS – SANITARY FACILTY

Serial Number 001 – Sanitary Wastewater (Design Flow = 6.0 MGD)

| Effluent Characteristics | Reported Discharge | | Proposed Limits | | Applicable Water Quality Criteria and/or Effluent Guidelines |
|---|---|---|---|---|---|
| | Monthly Average | Daily Maximum | Monthly Average | Daily Maximum | |
| Total Phosphorus (mg/l) | 5.04 | 22 | 0.447 | 1.447 | 401 KAR 5:065, Section 2(8)<br>401 KAR 5:080, Section 1(2)(c)2 |
| Total Nitrogen (mg/l) | N/A | N/A | Report | Report | 401 KAR 5:065, Section 2(8) |
| Chronic Toxicity ($TU_C$) | N/A | 3.44 | N/A | 1.00 | 401 KAR 10:029, Section 4<br>401 KAR 10:031, Sections 2 and 4 |

The data contained under the reported discharge columns is not from the renewal application, but rather from the analysis of the DMR data that has been reported during the term of the previous permit.

The abbreviation $CBOD_5$ means Carbonaceous Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation N/A means not applicable.
The abbreviation NR means not reported on the Discharge Monitoring Report (DMR).
The effluent limitations for $CBOD_5$ and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.

## 4. METHODOLOGY USED IN DETERMINING LIMITATIONS

a. Serial Number

Outfall 001 Sanitary Wastewater (Design Flow = 6.0 MGD)

b. Effluent Characteristics

Flow(Influent/Effluent), $CBOD_5$ (Influent/Effluent), TSS (Influent/Effluent), Fecal Coliform Bacteria, *Escherichia Coli*, pH, Ammonia Nitrogen, Dissolved Oxygen, Total Phosphorus, Total Nitrogen, and Chronic Toxicity.

c. Pertinent Factors

This facility treats municipal wastewater and Hopkinsville has an approved pretreatment program. The City of Hopkinsville 201 Facility Plan recognizes the wastewater treatment plant, WWTP, as a regional facility.

The effective date of this permit is being syncretize with the Northside Wastewater Treatment Plant permit; which is also, operated and owned by the Hopkinsville Water Environment Authority. The Northside WWTP is scheduled for decommission on April 1, 2012. Upon that date, the influent of Northside WWTP shall have been routed to Hammond Wood WWTP.

The City of Hopkinsville is engaged in storm water management actions to reduce pollution in runoff. Best Management Practice, BMP, Plans have been implemented and are under way with the Division of Conversation's approval and state cost-sharing assistance in implementing BMP actions.

Total Residual Chlorine monitoring and limitations do not apply. The disinfection method is ultraviolet irradiation.

d. Determination of Total Phosphorus Limitations

The Division of Water notes the nutrient/eutrophication biological indicators presence in the North Fork of Little River. Discharge monitoring reports (DMRs) of Hopkinsville Northside WWTP and Hopkinsville Hammond Wood WWTP indicate that both facilities are contributing sources. These pollutants cause low dissolved oxygen in the stream; resulting in an impairment to support a warm water aquatic habitat.

Total Phosphorus Limitations for Hopkinsville Northside WWTP and Hopkinsville Hammond Wood WWTP are determined by the following mass balance equation with a monthly average limit of 1 mg/l and daily maximum limit of 2 mg/l for the combined effluent of the facilities.

$$(C_N)(Q_N) + (C_H)(Q_H) = (Q_N + Q_H)(C_B)$$

**Effluent Monthly Average Limit of 1 mg/l**

$$(2\ mg/l)(1.704\ MGD) + C_H\ (3.08\ MGD) = (1.704 + 3.08)(1\ mg/l)$$
$$C_H = [4.784 - 3.408]/3.08$$

$$C_H = 0.447\ mg/l$$

Where $C_N$ – concentration of Northside WWTP Effluent at 2 mg/l;
$C_H$ - concentration of Hammond Wood WWTP Effluent to be determined;
$C_B$ - concentration of the Combined Effluent the limit level;
$Q_N$ - average reported flow of Northside WWTP Effluent at 1.704 MGD;
$Q_H$ - average reported flow of Hammond Wood WWTP Effluent at 3.08 MGD;

**Effluent Daily Maximum Limit of 2 mg/l**

$$(3\ mg/l)(1.704\ MGD) + C_H\ (3.08\ MGD) = (1.704 + 3.08)(2\ mg/l)$$
$$C_H = [9.568 - 5.112]/3.08$$

$$C_H = 1.447\ mg/l$$

Where $C_N$ – concentration of Northside WWTP Effluent at 3 mg/l;

e. Monitoring Requirements

Influent sampling shall be conducted at the nearest accessible point in the collection system but prior to commencement of treatment.

Effluent sampling shall be conducted at the nearest point after final treatment but prior to discharge to or mixing with the receiving waters.

Effluent Flow monitoring shall be conducted continuously by recorder.

Influent Flow monitoring shall be conducted instantaneously once per week.

$CBOD_5$ (Influent/Effluent) and TSS (Influent/Effluent) monitoring shall be conducted once per week by 24 hour composite sampling.

Percent Removal shall be determined monthly by calculation.

Ammonia Nitrogen, Total Phosphorus and Total Nitrogen shall be monitored once per week by 24 hour composite sampling.

*Escherichia Coli,* pH, and Dissolved Oxygen shall be monitored once per week by grab sample.

Chronic Toxicity shall be monitored quarterly by three (3) 24 hour composite samples collected every other day.

f. Justification of Conditions

The Kentucky regulations cited below have been duly promulgated pursuant to the requirements of Chapter 224 of the Kentucky Revised Statutes.

*Escherichia Coli* and Fecal Coliform Bacteria
The limits for *Escherichia Coli* are consistent with the requirements of 401 KAR 10:031, Section 7, 401 KAR 5:045 Section 4 and 401 KAR 5:080, Section 1(2)(c) 2. The removal of Fecal Coliform Bacteria is consistent with the requirements of 401 KAR 5:080, Section 1 (2) (c)2. Although Fecal Coliform Bacteria has been used as an indicator of fecal contamination, it does contain other species that are not necessarily fecal in origin. EPA recommends *Escherichia Coli*, which is specific to fecal material from warm-blooded animals, as the best indicator of health risk from contact with recreational waters. Therefore, it is the "Best Professional Judgment "BPJ" of the Division of Water that *Escherichia Coli* replace Fecal Coliform Bacteria on this permit.

Flow (Influent/Effluent)
The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(8).

Influent $CBOD_5$, Influent TSS, and Percent Removal
The monitoring requirements for influent $CBOD_5$ and influent TSS are consistent with the requirements of 401 KAR 5:065, Section 2(8). The raw influent values of these two parameters are necessary to determine compliance with the 85 percent removal requirement specified by 40 CFR 133.102 (a)(4) and (b)(3).

$CBOD_5$, Ammonia Nitrogen, and Dissolved Oxygen
The limits for these parameters are consistent with the requirements of 401 KAR 10:031, Section 4, and 401 KAR 5:045, Sections 3 and 5. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Section 5 of 5:045 requires biochemically degradable wastewaters to receive treatment in excess of secondary treatment if the Cabinet determines that the receiving water would not satisfy applicable water quality standards as a result of a facility discharge or discharges from multiple facilities.

Total Suspended Solids
The limits for this parameter are consistent with the requirements of 401 KAR 10:031, Section 4 and 5:045, Sections 2 and 3. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Sections 2 and 3 of 5:045 require biochemically degradable wastewaters to receive secondary treatment.

pH
The limits for these parameters are consistent with the requirements of 401 KAR 10:031, Section 4 and 5:045, Section 4. Section 4 of 10:031 establishes water quality criteria for the protection of Kentucky's waters. Section 4 of 5:045 establishes the acceptable levels of these parameters for biochemically degradable wastewaters.

Total Phosphorus
The limits for phosphorus are consistent with the requirements of 401 KAR 5:080, Section 1(2)(c) 2. These limits are representative of the Division of Water's "Best Professional Judgment" (BPJ) determination of the "Best Practicable Technology Currently Available" (BPT) and "Best Available Technology Economically Achievable" (BAT) requirements for these pollutants.

Total Nitrogen
The monitoring requirements for this parameter are consistent with the requirements of 401 KAR 5:065, Section 2(8)(a). Total Nitrogen is TKN (as N) and nitrate/nitrite (as N).

Chronic Toxicity
The requirements for this parameter are consistent with the requirements of 401 KAR 10:029, Section 4 and 401 KAR 10:031, Sections 2 and 4.

**5. ANTIDEGRADATION**

The conditions of 401 KAR 10:029, Section 1 have been satisfied by this permit action. Since this permit action involves reissuance of an existing permit, and does not propose an expanded discharge, a review under 401 KAR 10:030 Section 1 is not applicable.

**6. PROPOSED COMPLIANCE SCHEDULE FOR ATTAINING EFFLUENT LIMITATIONS**

The permittee will comply with all effluent limitations by the effective date of the permit.

**7. PROPOSED SPECIAL CONDITIONS WHICH WILL HAVE A SIGNIFICANT IMPACT ON THE DISCHARGE**

Annual Sewer User Surveys

Consistent with the requirements of 401 KAR 5:057 and 401 KAR 5:080, Section 1(2)(c)2 the permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. This condition is representative of the Division of Water's "Best Professional Judgment" that such surveys are necessary to demonstrate compliance with 401 KAR 5:057.

Best Management Practices (BMP) Plan

Pursuant to 401 KAR 5:065, Section 2(10), a BMP requirement shall be included: to control or abate the discharge of pollutants from ancillary areas containing toxic or hazardous substances or those substances which could result in an environmental emergency; where numeric effluent limitations are infeasible; or to carry out the purposes and intent of KRS 224. The facility has several areas where support activities occur which have a potential of the discharge of such substances through storm water runoff or spillage. Some of these areas will drain to present wastewater treatment plants, others will not.

Certified Operators

Pursuant to 401 KAR 5:010, Section 2(1) wastewater systems shall be operated under the supervision of a certified operator who holds a Kentucky Certificate equivalent to the class of system being supervised.

Pursuant to 401 KAR 5:010, Section 2(2) of 401 KAR 5:010 the certified operator shall be reasonably available if not physically present while the system is operating.

Pursuant to 401 KAR 5:010, Section 2(3) the Kentucky Certificate shall be displayed on the wall of wastewater system office.

Outfall Signage

It is the Best Professional Judgment of the Division of Water, 401 KAR 5:080, Section 1(2)(c)2, that all permittees post a marker at all discharge locations and/or monitoring points. The ORSANCO requirements for the marker specify it to be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and is to be posted as near as possible to the actual sampling location.

Pretreatment Requirements

Pursuant to the requirements of 40 CFR 403, July 1, 2006 as incorporated by 401 KAR 5:057, November 11, 2008 a Publicly Owned Treatment Works (POTW)is required to implement the National Pretreatment Standards to control pollutants which pass through or interfere with the treatment process of the POTW or which may contaminate the sewage sludge. These requirements include specific prohibitions and the necessity to development and implementation of Pretreatment Program if one or more specific criteria are met.

Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works is subject to federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

Monthly Operating Reports (MOR)

Pursuant 401 KAR 5:065, Section 2(8)3 the permit shall incorporate monitoring requirements as appropriate to assure compliance with the permit limitations. In addition to the monitoring of effluent as specified by the permit the permittee shall conduct process control monitoring on a daily basis and record the data on a Monthly Operating Report (MOR) which shall be submitted with the Discharge Monitoring Reports. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

**8. PERMIT DURATION**

Five (5) years. This facility is in the Four Rivers, Upper & Lower Cumberland Basin Management Unit as per the Kentucky Watershed Management Framework.

**9. PERMIT INFORMATION**

The application, draft permit, fact sheet, public notice, comments received and additional information is available from the Division of Water at 200 Fair Oaks Lane, Frankfort, Kentucky 40601.

**10. REFERENCES AND CITED DOCUMENTS**

All material and documents referenced or cited in this fact sheet are parts of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

**11. CONTACT**

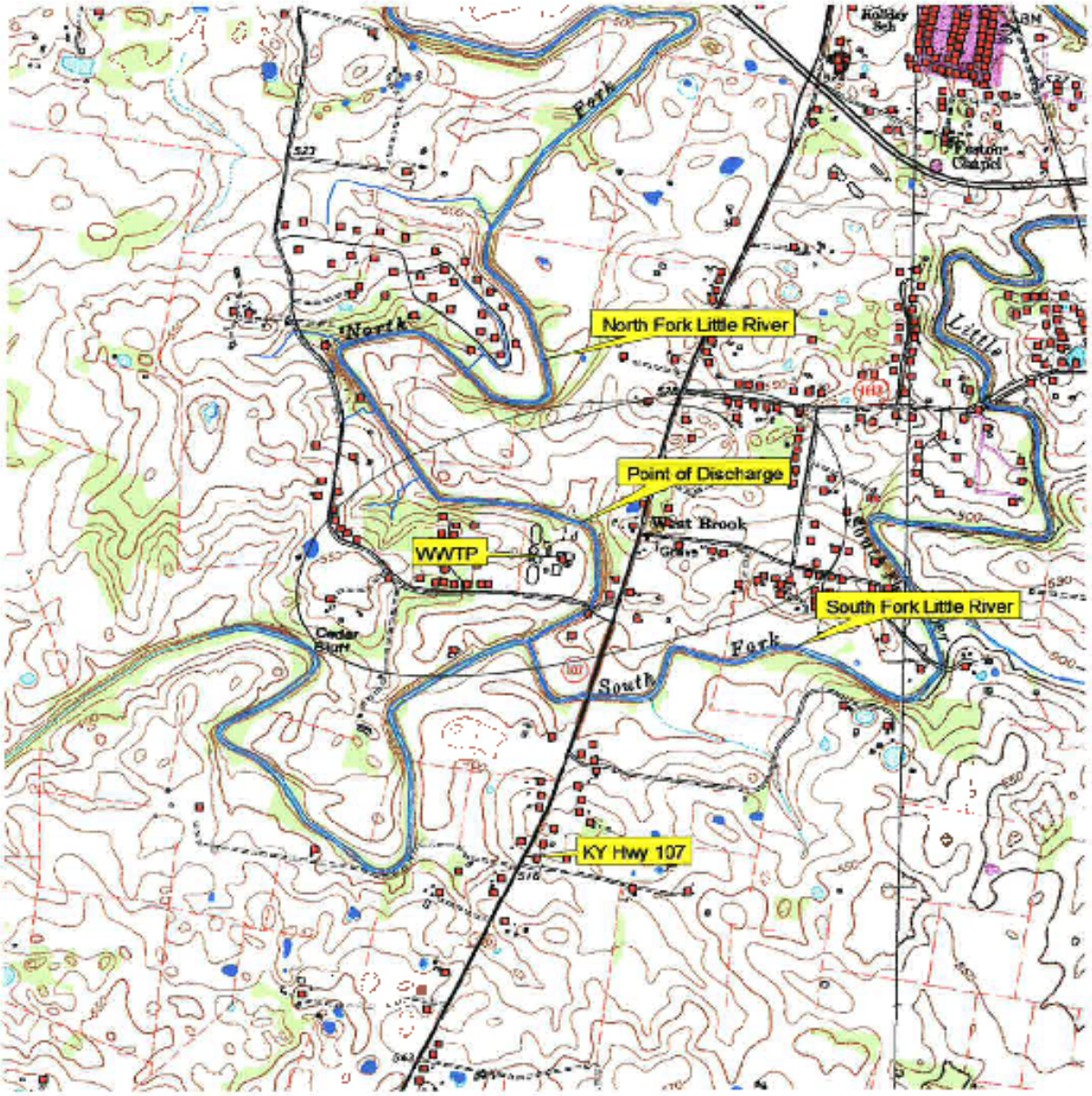
For further information on the draft permit or comment process, contact the individual identified on the Public Notice or the Permit Writer – Dan Juett at (502) 564-8158, extension 4894, or email Dan.Juett@ky.gov.

**12. PUBLIC NOTICE INFORMATION**

Please refer to the attached Public Notice for details regarding the procedures for a final decision, deadline for comments and other information required by 401 KAR 5:075, Section 4(2)(e).

# Exhibit A
## Hammond Wood Wastewater Treatment Plant
## Hopkinsville Water Environment Authority
## 25 June 2003

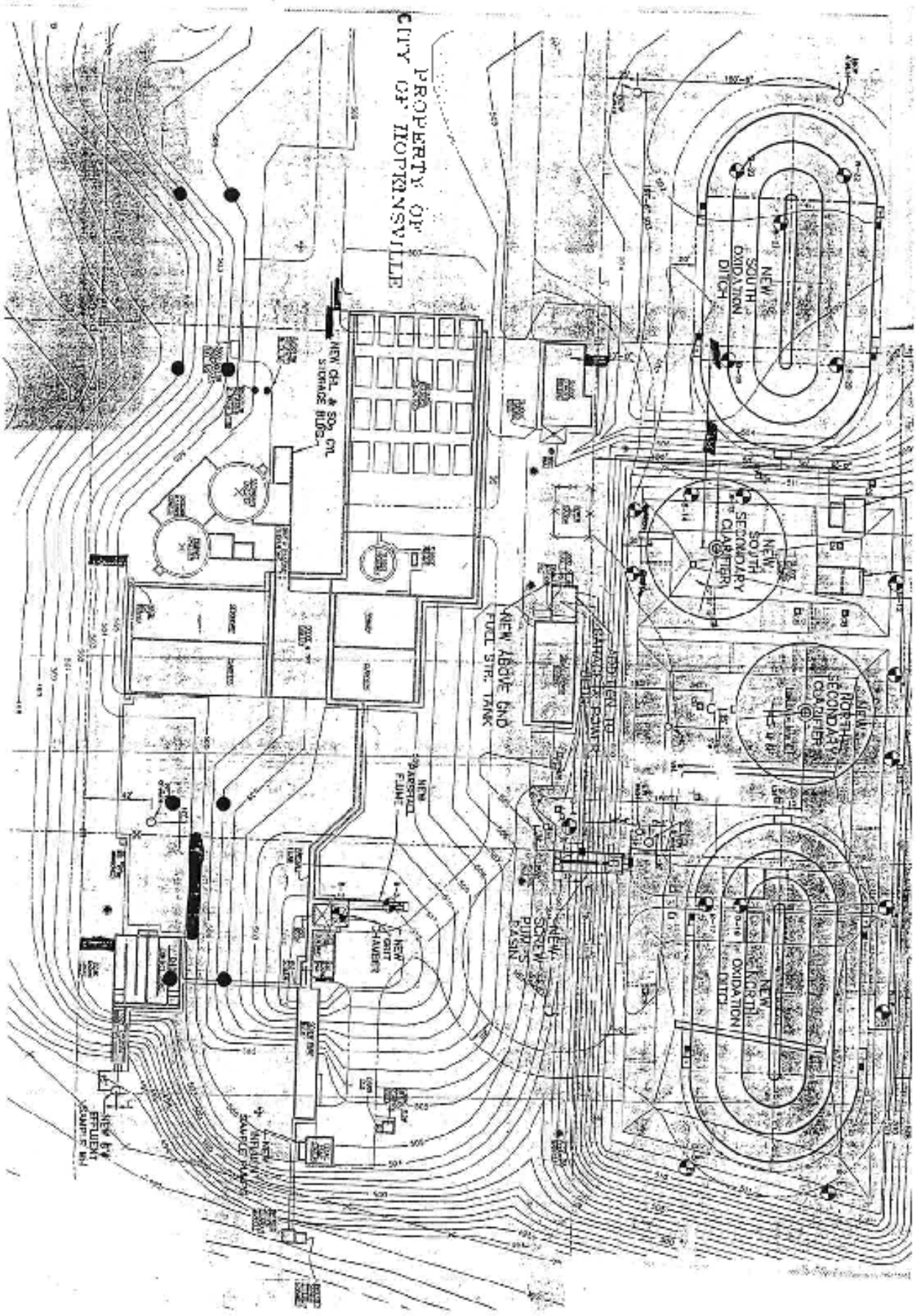
Scale: 1" = 2000'




Legend:

Transportation CL [000103]
STATE HWY AGENCY
COUNTY HWY AGENCY
MUNICIPAL HWY AGENCY
MILITARY RESERVATION
PRIVATE
STATE PARK
E 911 Point [000108]
Structure
Hydrographic Centerline
Hydrographic Boundary
Christian County

HWEA Archive Data:
Project: master.apr
View: christian county
Layout: 062503 usgs at h_wood


PROPERTY OF
CITY OF HOPKINSVILLE
NEW SOUTH OXIDATION DITCH
NEW SOUTH SECONDARY CLARIFIER
NEW NORTH SECONDARY CLARIFIER
NEW NORTH OXIDATION DITCH
NEW ABOVE GND FUEL STR. TANK
NEW SCREW PUMP & BASIN
NEW GRIT CHAMBER
NEW PARSHALL FLUME
NEW CHL. & SO2 CYL. STORAGE BLDG.
NEW EFFLUENT SAMPLER

# KPDES

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

# PERMIT

**PERMIT NO.:** KY0066532
**AI NO.:** 766

## AUTHORIZATION TO DISCHARGE UNDER THE KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

Pursuant to Authority in KRS 224,

Hopkinsville Water Environment Authority
P. O. Box 628
Hopkinsville, Kentucky 42240

is authorized to discharge from a facility located at

Hammond Wood Wastewater Treatment Plant
Gary Lane
Hopkinsville, Christian County, Kentucky

to receiving waters named

North Fork of the Little River at latitude 36° 48′ 14″ and longitude 87° 30′ 54″

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, IV, V and VI hereof. The permit consists of this cover sheet, and Part I 2 pages, Part II 1 page, Part III 1 page, Part IV 4 pages, Part V 3 pages, and Part VI 3 pages.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

**Date Signed**

**Sandra L. Gruzesky, Director**
**Division of Water**

## PART I A - EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning on the effective date of this permit and lasting through the term of this permit, the permittee is authorized to discharge from Outfall serial number: 001 – Sanitary Wastewater (Design Flow = 6.0 MGD)

Such discharges shall be limited and monitored by the permittee as specified below:

| EFFLUENT CHARACTERISTICS | DISCHARGE LIMITATIONS (lbs/day) | | DISCHARGE LIMITATIONS Other Units (Specify) | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|
| | Monthly Avg. | Daily Max. | Monthly Avg. | Daily Max. | Measurement Frequency | Sample Type |
| Effluent Flow (MGD) | Report | Report | N/A | N/A | Continuous | Recorder |
| Influent Flow (MGD) | Report | Report | N/A | N/A | 1/Week | Instantaneous |
| Effluent $CBOD_5$ (mg/l) | 501 | 751 | 10 | 15 | 1/Week | 24 Hr Composite |
| Influent $CBOD_5$ (mg/l) | Report | Report | Report | Report | 1/Week | 24 Hr Composite |
| Percent Removal $CBOD_5$ (%) | N/A | N/A | 85 or greater | | 1/Month | Calculated |
| Effluent TSS (mg/l) | 1502 | 2253 | 30 | 45 | 1/Week | 24 Hr Composite |
| Influent TSS (mg/l) | Report | Report | Report | Report | 1/Week | 24 Hr Composite |
| Percent Removal TSS (%) | N/A | N/A | 85 or greater | | 1/Month | Calculated |
| Ammonia Nitrogen (as mg/l N) | | | | | | |
| May 1 - October 31 | 100 | 150 | 2.0 | 3.0 | 1/Week | 24 Hr Composite |
| November 1 - April 30 | 250 | 375 | 5.0 | 7.5 | 1/Week | 24 Hr Composite |
| *Escherichia Coli* (N/100 ml) | N/A | N/A | 130 | 240 | 1/Week | Grab |
| Dissolved Oxygen (mg/l) (minimum) | N/A | N/A | Not less than | 7.0 | 1/Week | Grab |
| pH (standard units) | N/A | N/A | 6.0 (min) | 9.0 (max) | 1/Week | Grab |
| Total Phosphorus (mg/l) | 22 | 72 | 0.447 | 1.447 | 1/Week | 24 Hr Composite |
| Total Nitrogen (mg/l) | N/A | N/A | Report | Report | 1/Week | 24 Hr Composite |
| Chronic Toxicity ($TU_C$) | N/A | N/A | N/A | 1.00 | 1/Quarter | 3 24 Hr Composite |

The abbreviation $CBOD_5$ means Carbonaceous Biochemical Oxygen Demand (5-day).
The abbreviation TSS means Total Suspended Solids.
The abbreviation N/A means Not Applicable.
The effluent limitations for $CBOD_5$ and TSS are Monthly (30 day) and Weekly (7 day) Averages.
The effluent limitations for *Escherichia Coli* are thirty (30) day and seven (7) day Geometric Means.
Total Nitrogen is to be reported as the summation of the analytical results for Total Nitrates, Total Nitrites, and Total Kjeldahl Nitrogen.
There shall be no discharge of floating solids or visible foam or sheen in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location: nearest accessible point prior to discharge to or mixing with the receiving waters or wastestreams from other outfalls.

## PART I B - SCHEDULE OF COMPLIANCE

The permittee shall achieve compliance with all requirements on the effective date of this permit.

## PART II - STANDARD CONDITIONS FOR KPDES PERMIT

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

It is the responsibility of the permittee to demonstrate compliance with permit parameter limitations by utilization of sufficiently sensitive analytical methods.

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

## PART III - OTHER REQUIREMENTS

A. Reporting of Monitoring Results

Monitoring results obtained during each monitoring period must be reported on a preprinted Discharge Monitoring Report (DMR) Form that will be mailed to you. The completed DMR for each monitoring period must be sent to the Division of Water at the address listed below (with a copy to the appropriate Regional Office) postmarked no later than the 28th day of the month following the monitoring period for which monitoring results were obtained.

Division of Water
Madisonville Regional Office
Madisonville State Office Bldg.
625 Hospital Drive
Madisonville, Kentucky 42431-1683
ATTN: Supervisor

Division of Water
Surface Water Permits Branch
Permit Support Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

B. Reopener Clause

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:086, if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

C. Sludge Disposal

The disposal or final use of sewage sludge generated during the treatment of domestic sewage in a treatment works shall be disposed of in accordance with federal requirements specified in 40 CFR Part 503 and state requirements specified in Division of Waste Management regulations 401 KAR Chapter 45.

D. Certified Operators

This wastewater system shall be operated under the supervision of a Class III Kentucky Certified Operator who shall be reasonably available at all times.

E. Monthly Operating Reports

In addition to the monitoring of effluent as specified by the permit the permittee shall conduct process control monitoring on a daily basis and record the data on a Monthly Operating Report (MOR) which shall be submitted with the Discharge Monitoring Reports. Process control monitoring is that monitoring performed by the operators of the wastewater treatment plant to determine if the wastewater system is operating at its optimum efficiency. This monitoring includes but is not limited to influent and effluent quality and quantity monitoring, chemical usage, sludge monitoring including volume produced, wasted, and disposed, and monitoring of internal units such as aeration basins and oxidation ditches.

F. Outfall Signage

The permittee shall post a permanent marker at all discharge locations and/or monitoring points. The marker shall be at least 2 feet by 2 feet in size and a minimum of 3 feet above ground level with the Permittee Name and KPDES permit and outfall numbers in 2 inch letters. For internal monitoring points the marker shall be of sufficient size to include the outfall number in 2 inch letters and shall be posted as near as possible to the actual sampling location.

# PART IV – PRETREATMENT REQUIREMENTS

A. Annual Sewer User Surveys

The permittee shall conduct annual sewer user surveys to determine if conditions warrant the development and implementation of a pretreatment program. An annual report listing the industrial users, the manufacturing processes, the nature and volume of flow and any problems caused by the users shall be submitted no later than December 31 of each year, unless otherwise specified by the Division of Water.

B. Necessity to Develop and Implement a Pretreatment Program

POTWs which meet one or more of the following criteria are required to develop, submit for approval, and implement specific Pretreatment Program Requirements.

A POTW or combination of POTWs operated by the same authority, with a total design flow greater than five (5) million gallons per day (MGD) and receiving from industrial users which pass through or interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

A POTW with a design flow of five (5) MGD or less shall develop a pretreatment program if the cabinet determines that the nature or volume of the industrial wastewaters, upsets of the treatment process, violations of the POTW effluent limitations, contamination of municipal sludge or other circumstances warrant to prevent interference with the POTW or pass through.

C. Prohibited Discharges

The following are prohibit from being discharged to the POTW.

- Pollutants which create a fire or explosion hazard in the POTW;
- Pollutants which will cause corrosive structural damage to the POTW, but in no case, discharges with a pH lower than 5.0;
- Solid or viscous pollutants in amounts which will cause obstruction to the flow in sewers, or other interference with operation of the POTW;
- Any pollutant, including oxygen demanding pollutants (BOD5, etc.), released in a discharge at such a volume or strength as to cause interference in the POTW;
- Heat in amounts, which will inhibit biological activity in the POTW, but in no case, heat in such quantities that the influent to the sewage treatment works exceeds 104o F (40o C);
- Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass-through;
- Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems; and,
- Any trucked or hauled waste except, at discharge points designated by the POTW.

D. Approved Pretreatment Program

The Division of Water approved the Pretreatment Program developed by the permittee on January 19, 1982. Subsequent local limit revaluations and updates have been performed the latest being in July 2008.

Program Requirements

1. The permittee shall be responsible for the performance of all pretreatment requirements contained in 40 CFR Part 403, and shall be subject to enforcement actions, penalties, fines, and other remedies by the Cabinet. The permittee shall implement and enforce its approved POTW pretreatment program. The permittee's approved POTW pretreatment program is hereby made an enforceable condition of this permit. The Cabinet may initiate enforcement action against a POTW and against an industrial user for noncompliance with applicable standards and requirements as provided in KRS 224.16-050(1), 224.70-110, and 224.73-120, and pursuant to the Clean Act.

2. The permittee shall enforce the requirements promulgated under Sections 307(b), 307(c), 307(d), and 402(b) of the Act. The permittee shall cause industrial users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

3. The permittee shall perform the pretreatment functions as required in 401 KAR 5:057, Section 6 and 40 CFR Part 403 including, but not limited to:

   a. Implement the necessary legal authorities as provided in 40 CFR 403.8. This includes, among other things, the authority to:

      (1) Deny or condition new or increased contributions of pollutants or changes in the nature of pollutants;
      (2) Require compliance with applicable pretreatment standards;
      (3) Control through permit to ensure compliance;
      (4) Require the development of compliance schedules and submission of reports;
      (5) Carry out inspection, surveillance, and monitoring procedures;
      (6) Obtain remedies for noncompliance by industrial users.

   b. Implement the programmatic functions as provided in 401 KAR 5:057, Section 6. This includes:

      (1) An industrial waste survey;
      (2) Notification of appropriate federal, state and/or local standards or limitations;
      (3) Receipt and analysis of self-monitoring reports and other notices;
      (4) POTW compliance sampling and analysis;
      (5) Noncompliance investigations and enforcement;
      (6) Public participation.

   c. Provide the required funding, equipment, and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3) and 403.9(b)(4).

4. The permittee shall adopt and enforce local limits that will protect the treatment works against interference, pass-through, and sludge contamination. Local limits shall be re-evaluated as part of the KPDES Permit renewal process. Local limits shall be re-evaluated when changes to water quality standards, stream flow, removal rates, POTW design capacity, character or volume of pollutant loading, changes in industrial users or other considerations. Such re-evaluates will be submitted with 30 days of the event precipitating the change and shall be implemented within 60 days of approval by the Division of Water.

D. Approved Pretreatment Program - continued

Semi-Annual Reporting

1. The permittee shall submit semi-annually a pretreatment report to the state. The report due on March 1st shall describe the permittee's pretreatment program activities over the previous year and shall cover the period January through December. The report due on September 1st shall describe the permittee's pretreatment program activities over the previous six (6) months and shall cover the period January through June. In the event that the permittee is not in compliance with any conditions or requirements of this permit, then the permittee shall also include the reasons for noncompliance and state how and when the permittee shall comply with such conditions and requirements. Each report shall contain, but not be limited to, the following information:

   a. Analytical results of the POTW's influent, effluent, and sludge (including sludge from lagoons) annually, by the 28th of January, for those pollutants identified under Section 307(a) of the Act which are known or suspected to be discharged by industrial users, and for any non-priority pollutants which the permittee believes may be causing or contributing to interference, pass-through, or adversely impacting sludge quality. The report shall include all pollutants identified in Part D of Form A (Revised November 2003). The frequency of analysis shall not exceed twelve months.

   b. A discussion of upset, interference, or pass-through incidents, if any, at the POTW treatment plant which the permittee knows or suspects were caused by industrial users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the industrial user(s) responsible.

   c. The cumulative number of industrial users that the permittee has notified regarding baseline monitoring reports and the cumulative number of industrial user responses.

   d. An updated list of the permittee's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The permittee shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards, those subject to more stringent applicable standards, those subject to only local standards, those subject to reduced reporting and those that are non-categorical significant industrial users. The permittee shall characterize the compliance status of each industrial user by employing the following descriptions:

      (1) In compliance with baseline monitoring report requirements (where applicable);
      (2) Consistently achieving compliance;
      (3) Inconsistently achieving compliance;
      (4) Significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);
      (5) On a compliance schedule to achieve compliance (include the date final compliance is required);
      (6) Not achieving compliance and not on a compliance schedule;
      (7) The permittee does not know the industrial user's compliance status (with explanation).

D. Approved Pretreatment Program - continued

Semi-Annual Reporting - continued

e. A summary of the inspection and sampling activities conducted by the permittee during the past six (6) months to gather information and data regarding industrial users. The summary shall include:

(1) The names of industrial users subject to surveillance by the permittee and an indication of whether they were inspected, sampled, or both and the frequency of these activities at each user; and
(2) The conclusions or results from the inspection or sampling of each industrial user.

f. A summary of the compliance and enforcement activities during the past six (6) months, the summary shall include the names of the industrial users affected by the following actions:

(1) Warning letter or notices of violation;
(2) Administrative orders;
(3) Civil actions;
(4) Criminal actions;
(5) Assessment of monetary penalties. For each industrial user identify the amount of the penalties;
(6) Restriction of flow to the POTW; or
(7) Disconnection from discharge to the POTW.

g. A description of any significant changes in operating the pretreatment program which differ from the information in the permittee's approved pretreatment program including, but not limited to changes concerning: the program's administrative structure; local industrial discharge limitations; monitoring program or monitoring frequencies; legal authority or enforcement policy; funding mechanisms; resource requirements; or staffing levels.

h. A summary of the semi-annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

i. A summary of public participation activities to involve and inform the public. This shall include a copy of the annual publication of significant violations, if such publication was needed to comply with 40 CFR 403.8(f)(2)(vii).

j. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

k. Any other information deemed as pertinent by the state in effectively administrating an approved pretreatment program.

2. A signed copy of this report shall be submitted by the due dates to the state at the address shown below:

Division of Water
Surface Water Permits Branch
Construction and Compliance Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

# PART IV - BEST MANAGEMENT PRACTICES

SECTION A. GENERAL CONDITIONS

1. Applicability

These conditions apply to all permittees who use, manufacture, store, handle, or discharge any pollutant listed as: (1) toxic under Section 307(a)(1) of the Clean Water Act; (2) oil, as defined in Section 311(a)(1) of the Act; (3) any pollutant listed as hazardous under Section 311 of the Act; or (4) is defined as a pollutant pursuant to KRS 224.01-010(35) and who have ancillary manufacturing operations which could result in (1) the release of a hazardous substance, pollutant, or contaminant, or (2) an environmental emergency, as defined in KRS 224.01-400, as amended, or any regulation promulgated pursuant thereto (hereinafter, the "BMP pollutants"). These operations include material storage areas; plant site runoff; in-plant transfer, process and material handling areas; loading and unloading operations, and sludge and waste disposal areas.

2. BMP Plan

The permittee shall develop and implement a Best Management Practices (BMP) plan consistent with 401 KAR 5:065, Section 2(10) pursuant to KRS 224.70-110, which prevents or minimizes the potential for the release of "BMP pollutants" from ancillary activities through plant site runoff; spillage or leaks, sludge or waste disposal; or drainage from raw material storage. A Best Management Practices (BMP) plan will be prepared by the permittee unless the permittee can demonstrate through the submission of a BMP outline that the elements and intent of the BMP have been fulfilled through the use of existing plans such as the Spill Prevention Control and Countermeasure (SPCC) plans, contingency plans, and other applicable documents.

3. Implementation

If this is the first time for the BMP requirement, then the plan shall be developed and submitted to the Division of Water within 90 days of the effective date of the permit. Implementation shall be within 180 days of that submission. For permit renewals the plan in effect at the time of permit reissuance shall remain in effect. Modifications to the plan as a result of ineffectiveness or plan changes to the facility shall be submitted to the Division of Water and implemented as soon as possible.

4. General Requirements

The BMP plan shall:

a. Be documented in narrative form, and shall include any necessary plot plans, drawings, or maps.

b. Establish specific objectives for the control of toxic and hazardous pollutants.

   (1) Each facility component or system shall be examined for its potential for causing a release of "BMP pollutants" due to equipment failure, improper operation, natural phenomena such as rain or snowfall, etc.

(2) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g., precipitation), or other circumstances which could result in a release of "BMP pollutants," the plan should include a prediction of the direction, rate of flow, and total quantity of the pollutants which could be released from the facility as result of each condition or circumstance.

c. Establish specific Best Management Practices to meet the objectives identified under paragraph b of this section, addressing each component or system capable of causing a release of "BMP pollutants."

d. Include any special conditions established in part b of this section.

e. Be reviewed by plant engineering staff and the plant manager.

5. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication entitled "NPDES Best Management Practices Guidance Document," and shall include the following baseline BMPs as a minimum.

a. BMP Committee
b. Reporting of BMP Incidents
c. Risk Identification and Assessment
d. Employee Training
e. Inspections and Records
f. Preventive Maintenance
g. Good Housekeeping
h. Materials Compatibility
i. Security
j. Materials Inventory

6. SPCC Plans

The BMP plan may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 CFR Part 151, and may incorporate any part of such plans into the BMP plan by reference.

7. Hazardous Waste Management

The permittee shall assure the proper management of solid and hazardous waste in accordance with the regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA) (40 U.S.C. 6901 et seq.) Management practices required under RCRA regulations shall be referenced in the BMP plan.

8. Documentation

The permittee shall maintain a description of the BMP plan at the facility and shall make the plan available upon request to NREPC personnel. Initial copies and modifications thereof shall be sent to the following addresses when required by Section 3:

Division of Water
Madisonville Regional Office
Madisonville State Office Bldg.
625 Hospital Drive
Madisonville, Kentucky 42431-1683
ATTN: Supervisor

Division of Water
Surface Water Permits Branch
Permit Support Section
200 Fair Oaks Lane
Frankfort, Kentucky 40601

9. BMP Plan Modification

The permittee shall amend the BMP plan whenever there is a change in the facility or change in the operation of the facility which materially increases the potential for the ancillary activities to result in the release of "BMP pollutants."

10. Modification for Ineffectiveness

If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of "BMP pollutants," then the specific objectives and requirements under paragraphs b and c of Section 4, the permit, and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements. If at any time following the issuance of this permit the BMP plan is found to be inadequate pursuant to a state or federal site inspection or plan review, the plan shall be modified to incorporate such changes necessary to resolve the concerns.

SECTION B. SPECIFIC CONDITIONS

Periodically Discharged Wastewaters Not Specifically Covered By Effluent Conditions

The permittee shall include in this BMP plan procedures and controls necessary for the handling of periodically discharged wastewaters such as intake screen backwash, meter calibration, fire protection, hydrostatic testing water, water associated with demolition projects, etc.

**PART V – BIOMONITORING - CHRONIC CONCERNS**

In accordance with PART I of this permit, the permittee shall initiate, within 30 days of the effective date of this permit, or continue the series of tests described below to evaluate wastewater toxicity of the discharge from Outfall 001.

**TEST REQUIREMENTS**

The permittee shall perform one short-term static-renewal fathead minnow (Pimephales promelas) growth test and one short-term static-renewal water flea (Ceriodaphnia dubia) life-cycle test. Tests shall be performed on a series of 24 hour composite samples collected as described in 1.B. below. In addition to use of a control, effluent concentrations for the tests must include the permitted limit, (i.e., 100% effluent) and at least four additional effluent concentrations. For a permit limit of 100% effluent, test concentrations shall be 20%, 40%, 60%, 80% and 100%. If the permit limit is less than 100% effluent and greater than or equal to 75% effluent, the test concentrations shall include the permitted limit, two concentrations below the limit that are based on a 0.5 dilution factor, and two concentrations above the limit (to include 100% and mid-point between the permit limit and 100%). If the permit limit is less than 75% effluent, test concentrations shall include the permit limit concentration, two concentrations below the limit based on a 0.5 dilution factor, and two concentrations above the limit based on a 0.5 dilution factor if possible, otherwise to include 100% and mid-point between the permit limit and 100% . Selection of different effluent concentrations must be approved by the Division prior to testing. Testing of the effluent shall be initiated within 36 hours of completing each 24 hour composite sample. Controls shall be tested concurrently with effluent testing using synthetic water. The analysis will be deemed reasonable and good only if the minimum control requirements are met, (i.e. For the Ceriodaphnia test: at least 80% survival of all control organisms and an average of 15 or more young per surviving female in the control solutions; and 60% of surviving control females must produce three broods. For the fathead minnow test: at least 80% survival in controls and the average dry weight per surviving organism in control chambers equals or exceeds 0.25 mg. Any test that does not meet the control acceptability criteria shall be repeated as soon as practicable within the monitoring period (i.e. monthly or quarterly). Noncompliance with the toxicity limit will be demonstrated if the $IC_{25}$ (inhibition concentration) for reproduction or growth is less than 100% effluent

Tests shall be conducted on both species at the frequency specified in PART I of this permit.

A minimum of three 24 hour composite samples shall be collected at a frequency of one 24 hour composite every other day. For example, the first sample would be used for test initiation on day 1 and for test solution renewal on day 2. The second sample would be used for test solution renewal on days 3 and 4. The third sample would be used for test solution renewal on days 5, 6, and 7. Each 24 hour composite shall be collected using a refrigerated automatic sampler. Each 24 hour composite sample shall consist of not less than 48 discrete aliquots of effluent. Aliquots shall be of equal volume and time-proportional unless effluent flow is expected to vary by more than 10% from one hour to another or by 50% over the 24 hour collection period (as predicted from historical trends, significant rainfall events, etc.). With anticipated effluent flow variation of greater than 10% per hour or 50% overall, the frequency, and volume of each aliquot shall be flow-proportional. The lapsed time from collection of the last aliquot of the composite and its first use for test initiation or for test solution renewal shall not exceed 36 hours.

**PART V – BIOMONITORING - CHRONIC CONCERNS**

**TEST REQUIREMENTS**

Composite samples shall be refrigerated and maintained at not greater than 6°C during collection, storage, transport and until used in the test by the laboratory.

If after at least six consecutive toxicity tests, it can be determined that Ceriodaphina dubia or the Fathead minnow is more sensitive and all tests have passed, a request for testing with only the most sensitive species can be submitted to the Division. Upon approval, that most sensitive species may be considered as representative and all subsequent compliance tests can be conducted using only that species unless directed at any time by the Division to change or revert to both.

**REPORTING REQUIREMENTS**

Results of all toxicity tests conducted with any species shall be reported according to the most recent format provided by the Division of Water. Notification of failed test shall be made to the Division's Water Quality Branch within five days of test completion. Test reports shall be submitted to the Division's Water Quality Branch within thirty days of completion.

**Chronic Toxicity**

If noncompliance with the toxicity limit occurs in an initial test, (i.e., the $IC_{25}$ for reproduction of water fleas or growth of minnows is less than 100% effluent), the permittee must repeat the test using a new set of three 24 hour composite samples. Sampling must be initiated within 15 days of completing the failed test. The second round of testing shall include both species unless approved for only the most sensitive species by the Division. Results of the second round of testing will be used to evaluate the possible need for a Toxicity Reduction Evaluation (TRE).

If the second round of testing also demonstrates noncompliance with the toxicity limit, the permittee will be required to perform accelerated testing as specified in the following paragraphs.

Complete four additional rounds of testing to evaluate the frequency and degree of toxicity within 60 days of completing the second round of failed testing. Results of the initial and second rounds of testing specified above, plus the four additional rounds of testing will be used in deciding if a TRE shall be required.

If results from any two of the six rounds of testing show a significant noncompliance with the chronic limit (i.e., $\geq$1.2 times the $TU_c$), or results from any four of the six tests show chronic toxicity (as defined in 1.A), a TRE will be required.

The permittee shall provide written notification to the Division of Water within five (5) days of completing accelerated testing stating that: (1) toxicity persisted and that a TRE will be initiated; or (2) that toxicity did not persist and the normal testing will resume.

Should toxicity prove not to be persistent during the accelerated testing period, but reoccur within 12 months of the initial failure at a level $\geq$ 1.2 times the $TU_c$, then a TRE shall be required.

**PART V – BIOMONITORING - CHRONIC CONCERNS**

**TOXICITY REDUCTION EVALUATION (TRE)**

Having determined that a TRE is required, the permittee shall initiate &/or continue at least monthly testing with both species until such time as a specific TRE plan is approved by the Division. A TRE plan shall be developed by the permittee and submitted to the Division within thirty days of determining a TRE is required. The plan shall be developed in accordance with the most recent EPA and Division guidance. Questions regarding this process may be submitted to the Division's Water Quality Branch.

The TRE plan shall include Toxic Identification Evaluation (TIE) procedures, treatability studies, and evaluations of: chemical usage including changes in types, handling and suppliers; operational and process procedures; housekeeping and maintenance activities; and raw materials. The TRE plan will establish an implementation schedule to begin immediately upon approval by the Division, to have duration of at least six months, and not to exceed 24 months. The implementation schedule shall include quarterly progress reports being submitted to the Division's Water Quality Branch, due the last day of the month following each calendar quarter.

Upon completion of the TRE, the permittee shall submit a final report detailing the findings of the TRE and actions taken or to be taken to prevent the reoccurrence of toxicity. This final report shall include: the toxicant(s), if any are identified; treatment options; operational changes; and the proposed resolutions including an implementation schedule not to exceed 180 days.

Should the permittee determine the toxicant(s) and/or a workable treatment prior to the planned conclusion of the TRE, the permittee will notify the Division's Water Quality Branch within five days of making that determination and take appropriate actions to implement the solution within 180 days of that notification.

**TEST METHODS**

All test organisms, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms (Fourth Edition), EPA-821-R-02-013, the most recent edition of this publication, or as approved in advance by the Division of Water.

Toxicity testing for compliance to KPDES discharge limits shall be performed by a laboratory approved by the Division of Water to conduct the required toxicity tests. Within each toxicity report to the Division of Water, the permittee must demonstrate successful performance of reference toxicant testing by the laboratory that conducts their effluent toxicity tests. Within 30 days prior to initiating an effluent toxicity test, a reference toxicant test must be completed for the method used; alternatively, the reference toxicant test may be run concurrent with the effluent toxicity test. In addition, for each test method, at least 5 acceptable reference toxicant tests must be completed by the laboratory prior to performing the effluent toxicity test. A control chart including the most recent reference toxicant test endpoints for the effluent test method (minimum of 5, up to 20 if available) shall be part of the report.